

CLAIMS

What is Claimed is:

1 1. A device for generating a display of an electronic program guide on a
2 screen, the device comprising:
3 a receiver including a tuner for receiving an input stream, of television content
4 and electronic program guide data, and separating the electronic program guide data from
5 the input stream;
6 a memory coupled to the tuner for storing the electronic program guide data
7 separated from the input stream;
8 display means for generating a display which combines a set of electronic
9 program guide data including a plurality of program titles, and a plurality of
10 organizational categories, each program title belonging to at least one of the
11 organizational categories, the program titles arranged in the display so that program titles
12 which belong to the same organizational categories are spatially adjacent and program
13 titles which are not members of the same organizational categories are spatially separated,
14 the organizational categories providing a first-level organization which defines overall
15 content of the display and a second-level organization which defines the spatial
16 separation of the program titles, where the organizational categories are time, channel,
17 topic and actor based, and are used at any organizational level.

1 2. The device of Claim 1, wherein the organizational categories provide
2 additional levels of organization to the display.

1 3. The device of Claim 1, wherein program titles are displayed in different
2 colors to represent associated organizational categories.

1 4. The device of Claim 1, wherein the organizational categories are
2 represented by icons.

1 5. The device of Claim 1, wherein the display further includes a first user-
2 link, where selecting the link provides instructions to the display means.

1 6. The device of Claim 5, wherein the instructions provided to the display
2 means instruct the display means to display a television program.

1 7. The device of Claim 5, wherein the instructions provided to the display
2 means instruct the display means to display additional textual or graphical electronic
3 program guide data.

1 8. The device of Claim 5, wherein the instructions provided to the display
2 means instruct the display means to display a receiver operating menu.

1 9. The device of Claim 8, wherein the receiver operating menu includes a
2 second user-link which instructs the display means to display the electronic program
3 guide based on the organizational categories.

1 10. The device of Claim 8, further comprising a memory device couple to the
2 receiver for recording selected television content, where the memory device is activated
3 through the selection of a second user-link included in the operating menu.

1 11. The device of Claim 8, further comprising a second user-link included in,
2 the operating menu, wherein a reminder for an upcoming television program is set when
3 the second user-link is selected.

1 12. The device of Claim 1, wherein the program titles are arranged three-
2 dimensionally so that some program titles appear to be displayed more distal from the
3 front of the display behind other program titles displayed more proximal to the front of
4 the display.

1 13. The device of Claim 1, wherein a remote control is used to direct the
2 receiver to perform an operational function, including signaling a recording device to
3 record a specified television program, signaling the tuner to generate a display of a
4 specified television program, and setting a reminder in memory to display the specified
5 television program upon receiving the specified television program in the input stream,
6 the operational function is performed by pressing a button on the remote control.

1 14. A method of displaying an electronic program guide on a screen, the
2 method comprising:
3 receiving an input stream of television content and electronic program guide data;
4 separating the electronic program guide data from the input stream;
5 storing the electronic program guide data separated from the input stream;
6 generating a display from the electronic program guide data, wherein the display
7 includes a plurality of program titles, and a plurality of organizational categories, each
8 program title belonging to at least one of the organizational categories;
9 arranging the program titles in the display so that program titles which belong to
10 the same organizational categories are spatially adjacent and program titles which are not
11 members of the same organizational categories are spatially separated;
12 creating a first-level organization through the organizational categories;
13 defining overall content of the program guide through the first-level organization;
14 creating a second-level organization through the organizational categories;
15 defining the spatial separation of the program titles through the second-level
16 organization;
17 utilizing organizational categories which are time, channel, topic, and actor based;
18 and
19 utilizing organizational categories at any organizational level.

1 15. The method of Claim 14, further comprising the steps of:
2 providing additional levels of organization, spatially separating the program titles;
3 and
4 utilizing organizational categories for the additional levels of organization.

1 16. The method of Claim 14, wherein the program titles utilize different colors
2 to represent the organizational categories.

1 17. The method of Claim 14, wherein the organizational categories are
2 represented by icons.

1 18. The method of Claim 14, further comprising:
2 receiving a user tuning request selecting a user-link; and
3 responding to the tuning request by displaying the television content associated
4 with the selected user-link.

1 19. The method of Claim 14, further comprising the steps of:
2 receiving a user request selecting a user-link; and
3 responding to the request by displaying textual or graphical electronic, program
4 guide data associated with the selected user-link.

1 20. The method of Claim 14, further comprising the steps of:
2 displaying an operating menu; and
3 displaying at least one user-link in the operating menu.

1 21. The method of Claim 20, further comprising the step of activating a
2 recording device.

1 22. The method of Claim 20, further comprising the step of setting a reminder
2 for an upcoming television program.

1 23. The method of Claim 14, wherein the program titles are arranged three-
2 dimensionally so that some program titles appear to be displayed more distally from a
3 front of the display, behind other program titles that appear to be displayed more
4 proximally to the front of the display.

1 24. The method of Claim 14, further comprising the steps of:
2 requesting the performance of an operational function from a remote control; and
3 performing the operational function by one of the following: signaling a recording
4 device to record a specified television program; generating a display of the specified
5 television program; and setting a reminder to display the specified television program
6 upon transmission of the specified television program.

1 25. An electronic program guide comprising:
2 a set of electronic program guide data including a plurality of program titles and a
3 plurality of organizational categories, where each program title belongs to at least one
4 organizational category;
5 a spatial arrangement of program titles resembling an outline, where a first-level
6 organization of the electronic program guide utilizes one organizational category and
7 defines the first-level of the outline format, and a second-level organization of the
8 electronic program guide utilizes a different organizational category and defines the
9 second-level of the outline format.

1 26. An electronic program guide comprising:

2 a set of electronic program guide data including a plurality of program titles and a
3 plurality of organizational categories, where each program title belongs to at least one
4 organizational category;

5 a first spatial arrangement of program titles in a three-dimensional format where
6 one organization level of the electronic program guide spatially groups program titles
7 which belong to the same organizational category in three-dimensional space; and
8 spatially separates program titles which do not belong to the same organizational
9 category in three-dimensional space;

10 a second spatial arrangement of program titles in two-dimensional space, where a
11 second organizational level of the electronic program guide spatially groups program
12 titles which belong to the same organizational category in the same two dimensional
13 plane, and spatially separates program titles which do not belong to the same
14 organizational category in a different two-dimensional plane.

1 27. A method of generating a program guide for display, comprising the steps
2 of:

3 retrieving program guide input data, the program guide input data including a
4 plurality of organizational categories, a plurality of program titles, each associated with at
5 least one organizational category; and

6 generating data describing a program guide, wherein the program guide includes
7 at least one organizational category, at least a subset of the program titles associated with
8 the organizational category, and a graphical indicia of the association between the
9 organizational category and the program titles associated with the organizational
10 category.

1 28. The method of Claim 27, wherein the graphical indicia is a spatial
2 proximity between the program title and the organizational category.

1 29. The method of Claim 27, wherein the organizational categories are
2 selected from the group comprising:
3 a time category;
4 a topic category; and
5 an actor category.

1 30. The method of Claim 27, wherein the program guide includes a
2 hierarchical arrangement of at least a portion of the organizational categories including a
3 lowest level organizational category, and the graphical indicia indicates an association
4 between the lowest level organizational category and the program titles associated with
5 the lowest level organizational category.

1 31. The method of Claim 30, wherein the hierarchical arrangement is user-
2 controllable.

1 32. The method of Claim 27, wherein the organizational categories are
2 differentiated by color.

1 33. The method of Claim 27, further comprising the steps of:
2 receiving a user tuning request selecting a user-link; and
3 responding to the user request by displaying program content associated with the
4 selected user link.

1 34. The method of Claim 27, further comprising the steps of:
2 receiving a user request selecting a user-link; and
3 responding to the user request.

1 35. The method of Claim 27, wherein the organizational categories include:
2 a first level organizational category defining an overall content of the program
3 guide; and
4 a second level organizational category defining a spatial separation of the program
5 titles.

1 36. An apparatus for providing a program guide to a display, comprising:
2 a memory for storing program guide data including
3 a plurality of organizational categories;
4 a plurality of program titles, each associated with at least one
5 organizational category;
6 a processor, communicatively coupled to the memory, for generating data
7 describing the program guide, wherein the program guide includes
8 at least one organizational category;
9 at least a subset of the program titles associated with the organizational
10 category; and
11 a graphical indicia of the association between the organizational category
12 and the program titles associated with the organizational category.

1 37. The apparatus of Claim 36, wherein the graphical indicia is a spatial
2 proximity between the program title and the organizational category.

1 38. The apparatus of Claim 36, wherein the organizational categories are
2 selected from the group comprising:
3 a time category;
4 a topic category; and
5 an actor category.

1 39. The apparatus of Claim 36, wherein the program guide displays a
2 hierarchical arrangement of at least a portion of the organizational categories including a
3 lowest level organizational category, and the graphical indicia indicates an association
4 between the lowest level organizational category and the program titles associated with
5 the lowest level organizational category.

1 40. The apparatus of Claim 39, wherein the hierarchical arrangement is user-
2 controllable.

1 41. The apparatus of Claim 36, wherein the organizational categories are
2 differentiated by color.

1 42. The apparatus of Claim 36, wherein the program guide further comprises
2 at least one first user-link for providing instructions to the processor.

1 43. The apparatus of Claim 42, wherein the instructions comprise instructions
2 to display a program.

1 44. The apparatus of Claim 43, wherein the instructions comprise instructions
2 to display additional program guide information selected from the group comprising:
3 textural program guide data; and
4 graphical program guide data.

1 45. The apparatus of Claim 43, wherein the instructions comprise instructions
2 to display a receiver operating menu.

1 46. The apparatus of Claim 45, wherein the receiver operating menu
2 comprises a second user-link for providing instructions to the processor to display the
3 program guide based on the organizational categories.

1 47. The apparatus of Claim 45, further comprising a memory device coupled
2 to the receiver for recording program content, wherein the memory device is activated
3 through selection of a second user link included in the operating menu.

1 48. The apparatus of Claim 36, further comprising a second user-link included
2 in the receiver operating menu, wherein a reminder for an upcoming program is set when
3 the second user-link is selected.

1 49. The apparatus of Claim 36, wherein the program titles are arranged three-
2 dimensionally so that some program titles appear to be displayed more distal from a front
3 of a display behind other program titles displayed more proximal to a front of the display.

1 50. The apparatus of Claim 36, wherein the processor and the memory are
2 included in a receiver, and a remote control is used to direct the receiver to perform an
3 operational function, including signaling a recording device to perform a function
4 selected from the group comprising:
5 recording a specified program;
6 signaling the receiver to generate a display of a specified program; and
7 setting a reminder to display a specified television program.

1 51. The apparatus of Claim 36, further comprising:
2 means for receiving a user tuning request selecting a user-link; and
3 means for responding to the user request by displaying program content associated
4 with the selected user link.

1 52. The apparatus of Claim 36, further comprising:
2 means for receiving a user request selecting a user-link; and
3 means for responding to the user request.

1 53. The apparatus of Claim 36, wherein the organizational categories include:
2 a first level organizational category defining an overall content of the program
3 guide; and
4 a second level organizational category defining a spatial separation of the program
5 titles.

1 54. A program storage device, readable by a computer, tangibly embodying at
2 least one program of instructions executable by the computer to perform method steps of
3 generating a program guide for display, the method steps comprising the steps of:
4 retrieving program guide input data, the program guide input data including
5 a plurality of organizational categories;
6 a plurality of program titles, each associated with at least one
7 organizational category;
8 generating data describing a program guide, wherein the program guide includes
9 at least one organizational category;
10 at least a subset of the program titles associated with the organizational
11 category; and
12 a graphical indicia of the association between the organizational category
13 and the program titles associated with the organizational category